PROPOSED SYNOPSIS LEADING TO THE AWARD OF Ph.D

DEGREE.R.U.

A STUDY OF CONSUMPTION PATTERN OF JUNK FOOD AMONG ADOLESCENTS AND ITS IMPACT ON THEIR HEALTH

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Food serves as the vital fuel for our bodies, playing a crucial role in cellular maintenance and fortifying our immune defence mechanism. Now a days, new generation moved to fast food, it is easily accessible and readily absorb in the body. It is low in cost and portable. There are lots of negative effects of consuming fast food, it is nutrient deficient and prepared with lots of chemicals, artificial scents and flavours as compared to traditional foods.

Generally it does not contain any nutrients that are essential for our body, also it does not follow five food group principles, and it only contains that thing that is only good for taste. Consuming junk food is primary factors for contributing many health disorders, some of them are: Obesity, Skin health (acne), Addiction, Mood disorders, constipation

Junk food is typically high in calories, sugars, and unhealthy fats, providing little nutritional value. Regular consumption can contribute to various health issues, so it's advisable to balance it with a nutritious diet.

Common examples of junk food include chips, sugary beverages, candy, and fast food. These items often lack essential nutrients like vitamins and minerals, leading to potential health risks such as obesity, diabetes, and heart problems if consumed excessively. Choosing a balanced diet with whole, nutrient-rich foods is essential for overall well-being.

In the domain of nutrition, junk food stands as a prime example of imbalance, characterized by an overabundance of simple carbohydrate, refined sugar, salt, and saturated fat. Through extensive processing, these edibles often lose their essential nutrients, fibre, and water content. Despite their convenience and affordability, embracing a diet rich in healthy alternatives proves vital for weight management, nutrient intake, and overall health maintenance.

Junk food, a pervasive presence in modern diets, refers to highly processed and convenient edibles typically rich in unhealthy components such as simple carbohydrates, refined sugar, salt, and saturated fats. These items, often low in essential nutrients, fibre, and water content, are known for their palatability and convenience but pose challenges to maintaining a balanced and nourishing diet. The prevalence of junk food in contemporary food choices underscores the importance of promoting healthier alternatives for optimal well-being.

Frequent consumption of junk food may impact mood, energy levels academic performance of adolescents. High consumption of junk food also leads to some dental problems and skin health.

Excessive junk food consumption in adolescent lead to unhealthy eating habits in adulthood, it is crucial to establish a good dietary pattern early on to promote lifelong well-being and reduce the risk of various health issues.

As per the Journal the Impact of Junk Food on Our Lives: A study on adolescent by **Sukhminder Singh** [1], fast food genuinely contributed to partitioning of third world. Also he stated that, junk food cause tremendous growth in obesity and difficulties that come along with.

Sunita Mishra in January 2013 stated in her article , Effects of junk food on adolescent health [2] , that adolescent consume more junk food as compared to green vegetable , she also stated that some adolescent consume junk food on daily basis , and few consume two times in a week and some once in a week.

According t to the study conducted by **Ujwala R.More**[3] in Jan 2013, the research article titled , Knowledge regarding health hazards of junk food among adolescents, she concluded that adolescents have average knowledge regarding junk food and its hazards, most student not undergone any teaching programme regarding hazards of consuming junk foods.

As per the article , A study on evaluation of junk food consumption and its impact on health , **Ms. Suchitra K Rajappan, Dr. Sudheesh.M, Dr.A.Anitha**[4] stated that , today's children are tomorrow's future, so there must be awareness among adolescents regarding nutrition education that will develop their eating habits of healthy foods among students to develop their physical and mental well being.

As per the article Adolescent knowledge regarding harmful effects of junk food, **Vandana Sharma**[5] in 2013 stated that, junk food can be easily prepared as compared to the traditional food and also cheap .It is also found that there is lack of knowledge among adolescent, improving nutrition knowledge may help them to make healthier food choices.

Junk food consumption is an unhealthy nutritional habit that is affected by family structure, peer groups, and socioeconomic status, Most of adolescent consume junk food because of their peer groups, and they get influenced because their friends are consuming those things. Most of the adolescents aware of disadvantages of junk food consumption although they still consume in peer pressure.

Socioeconomic status also influences the consumption of junk food; nowadays it is become the social status to consume junk food, adolescent who belong to upper strata group are more susceptible to consume junk food.

Dietary patterns of people are shifting from homemade foods to junk foods, most of the adolescents did not bring tiffin from their home as they did not like to eat homemade food they want to eat from canteen that contain a lot of chemical like monosodium glutamate (MSG) it enhances the taste of the food and attract adolescents.

It is also found that availability of junk food outlet near schools increase the consumption of junk food in adolescents, generally it is seen that there are number of junk food outlet are present near the school that increases the craving among adolescents.

Literature Review

J Vinay Gopal, S Sriram , k Kannabiran and Rseenivasan(2012) in their survey **Student's Perspective on Junk Foods,** there were 344 participants; among 344 respondents 205 were males and 139 females selected from VIT University, Vellore, Tamil Nadu.
Majority of adolescents attracts by advertisements on social media and television and also get addicted to junk food, as junk food contains a lot of food taste enhancers which attracts adolescents to consume junk food.
The author suggested that serious health effects might arise upon continuous consumption of junk foods.[6]

Amanda Fitzgerald, Caroline Heary, Colette Kelly(2013) in their study **Self-efficacy for healthy eating and peer support for unhealthy eating are associated with adolescents' food intake patterns,** there were a total of 483 participants, 264 boys and 219 girls from schools of Ireland.
Peer play an important role in dietary pattern of adolescent, adolescence is the most vulnerable phase in which they follow their friends specially in eating habits.
The author suggested that prevention programs that target self-efficacy for eating and peer support for unhealthy eating may be beneficial in improving dietary choices among adolescents.[7]

R.Kashyap, A.Joglekar, S.Verma(2014) in their study **EFFECT OF JUNK FOOD ON PHYSICAL PERFORMANCE OF SCHOOL CHILDREN,** a sample of 300 students of Durg city (150 girls &150 boys) were there.
As we know body needs fuel for performing activity, thus high quality nutrient are required, but inclination towards junk food became a major health issue among adolescent.
The author recommends that awareness programme should be regularly organised in each institution representing harmful effects of junk –food. Similarly parents-teacher meet should be organised to motivate homemade-healthy foods.[8]

M.Ramchandra , A. Salunkhe VR.Mohite(2015) in their study **Knowledge regarding Health Hazards of Junk Foods among Adolescents,** 115 respondents chosen from engineering college of Karad, Maharastra. Most of the adolescents are unaware of hazards of junk food, they consume because of the good taste. Majority of samples never undergone teaching programme regarding health consequences of junk foods.
The author suggested that to organise health awareness camp as well as to conduct teaching programmes regarding hazards of junk food consumption.[9]

M. Payab, R. Kelishadi, M. Qorbani(2015) in their study **Association of junk food consumption with high blood pressure and obesity in adolescents,** there were 14880 respondents from 30 provinces.
Intake of sweets and junk foods elevate the blood pressure as well as anthropometric measurement of the body, consumption of junk food leads to many hazards.
Junk food consumption increases the risk of both general and abdominal obesity. The author concluded that consumption of junk food should be reduced via restricting TV advertisements and increasing taxes on junk foods.[10]

Sapokta SD (2017) in her Journal **Junk Food Consumption among Secondary Level Student,** there were 142 respondents from Chitwan, Nepal.
Junk food is a derogatory term for cheap food containing high levels of calories from sugar and fat with little fibre, proteins, vitamins and minerals. Adolescents consume a greater amount of junk food which leads to a majority of ill effects later on.
The author recommended that the school and community conduct and implement awareness programme on junk food consumption and its ill effects.[11]

Mohammad Bagherniya, Firoozeh Mostafavi Darani(2018) in their study **The impact of adolescent friendships on unhealthy eating behaviours of overweight and obese adolescents: a qualitative study,** 52 overweight and obese adolescents selected from Mashhad and Isfahan, Iran.
It is seen that friend circle influences the eating habit of a person, such as in birthday party, school picnic etc.
The author suggested that peer support along with appropriate parenting style is necessary to affect adolescent eating behaviours.[12]

P. Poundel (2018) in her study**. Junk food consumption and its association with body mass index among school adolescents,** there were 311 participants from Parsa, Nepal.
It is seen that adolescents are attracted towards junk food because of its easy accessibility at a low cost, and also it is available at all the places.
The author suggested it is required to provide awareness regarding the consequences of junk food consumption, parents and school personnel should set the limit over consumption of junk food thus supporting government's mandate over ban of junk food.[13]

P.Sunita,Mathur.R.G(2018) in their Journal **Pattern of Junk Food Consumption and its Relationship with Body Mass Index among Adolescents,** data was obtained from 256 students.
Adolescent's fitness requires a well balanced diet but their unhealthy food preferences like eating

junk food leads to many ill effects that hinder their fitness and may also leads to various health concerns.
The author suggested that to develop an information booklet for enhancing the knowledge of harmful effects of junk food.[14]

R. Verma, C.Bansal, and T. Jain (2020) in their study **Impact of Junk food on Physical and Mental health of the Youngsters,** there were 600 youngsters of Bhopal city.
Serious health consequences are developing in youngsters by consumption of Junk Food and that could be converted them in chronic disease patients in near future.
The author concluded that junk food have negative effect and youngsters may suffer from various physical and mental health, High fat, high sugar diets can affect proteins that are important in brain development. Consequences like nutritional problem, skin problems, GIT problems, anxiety disorder and mood disorder can also occur.[15]

L. Hajivandi, M.Noroozi , M.Ekramzadeh(2020) in their study **Food habits in overweight and obese adolescent girls with Polycystic ovary syndrome (PCOS) ,** there were 33 girls participants.
Polycystic ovary syndrome is a hormonal disorder in women of reproductive age but in recent years, PCOS is seen in adolescent girls due to unhealthy food habit and obesity. Consumption of junk food became an integral part of daily lives that causes many health disorders.
The author suggested that change in food pattern control the symptoms and complication of PCOS.[16]

Frances Fleming-Milici, Jennifer L Harris (2020) in their study **Adolescents' engagement with unhealthy food and beverage brands on social media,** a total of 1564 participants were there from online survey.
Engagement with social media increased the unhealthy food consumption among adolescents; more screen time is also responsible for this. Adolescents used to spend time on social media sharing food pictures, vlogs etc.
The author suggested that high engagement with unhealthy food brands by young adolescents raises considerable concerns about consequences for adolescents' health.[17]

U. K.Singh,N.Gautam(2020) in their Journal **Educational Intervention of Intention Change for Consumption of Junk Food among School Adolescents,** a total 274 participants were there from Biruganj Metropolitan city, Nepal .
Consumption of junk food among adolescents increased in last few decades because of its good taste, easy availability, affordable cost, choices and flavours.

The author suggested that similar educational intervention programme must be performed to change their mindset towards junk food.[18]

S.Latreyi, L. Mirhadyan(2020) in their Journal, **Junk food consumption among high school students in Iran: the role of food advertising,** a total of 13654 participants were present from Rhast city in Iran.
Change in dietary pattern in adolescent period induces the different types of nutrition related disorders in adulthood. These habits are strongly influenced by family members, peers and social media. Junk food and fast food are all definitions that have been used to describe the quick, unhealthy, hunger satisfying foods, which are easy to make and easy to consume.
The author suggested avoiding excess use social media, TV, any advertising that influences adolescents should be ban or least telecasted.[19]

S Sujan. Bohara, K. Thapa, L.Datt Bhatt (2021) in their study **Determinants of Junk Food Consumption among Adolescents,** there were a total of 538 adolescents.
Consumption of junk food and its consequences has became a major public health concern globally because of its deteriorating health consequences, mostly adolescents are at risk, it may lead to obesity, hypertension, cardiovascular disease ,diabetes etc.
The author suggested that Government should strictly standardize and regulate advertising policies and over the top health claims advertise by junk food manufacturer. An appropriate intervention targeted to adolescents to improve food behaviors.[20]

L. Fajri and P. Minerva (2022) in their study **The Relationship of Fast Food towards the Event of Acne Vulgaris,** there were 52 respondents**.**
Acne can occur at any age but adolescence is the vital period for developing acne and food plays an important role, junk food contain lot of fat substances that elevate the production of sebaceous oil from sebaceous gland and cause acne.
The author concluded that there was a positive and significant relationship between fast food consumption behaviour and the incidence of acne in college students.[21]

Yara Qutteina, Lotte Hallez, Maxime Raedschelders(2022) in their journal **Food for teens: how social media is associated with adolescent eating outcomes,** there were 1002 adolescents from 18 schools across Flanders, Belgium.
Social media positively associated with eating attitudes, it promotes more unhealthy food as comparison to healthy ones.
The author suggested that there is an opportunity for health professionals to use social media in the promotion of core food among adolescents.[22]

Problems to be investigated

The aim of this proposed doctoral research is to conduct **a study of consumption pattern of junk food among adolescents and its impact on their health,** the research will focus on increasing demand of junk food among adolescents. Extra consideration is given on impacts of consumption of junk food. This study focus on obesity, skin health, addiction of the adolescents. By analysing these factors the study seeks to provide valuable perspective into awareness about junk food and its impact in this region.

Objectives

- To know the impact of the socioeconomic status on consumption of junk food among adolescents.
- To find out the impact of junk food on health of adolescent.
- To examine the influence of peer groups on junk food consumption among adolescents.
- To know the impact of social media on junk food consumption among adolescents.

Motivation of Research

1. Health Concerns: Junk food is typically high in calories, sugar, salt, and unhealthy fats, which can contribute to obesity, heart disease, diabetes, and other health issues. Understanding its consumption patterns helps in devising strategies to mitigate these health risks.

2. Public Health Impact: Consumption of junk food has significant public health impact, leading to a rise in health problems. Research aims to identify patterns and trends to inform public health policies and interventions.

3. Marketing and Advertising: The marketing and advertising of junk food, especially targeting children and adolescents, play a significant role in its consumption. Research investigates the effectiveness of marketing strategies and their impact on dietary behaviors.

Research Question

- Is socioeconomic status influencing the impact of consumption of junk food among adolescents?
- What are the impacts of junk food on health of adolescents?

- How does peer group influence the consumption of junk food among adolescents?
- Is social media influencing the consumption of junk food among adolescents?

Research design and Methodology

Research design- This present research is an exploratory research.

Sources of data

a) **Collection of secondary data**
   - Study of Journals & Books for collecting data
   - Study of published Article
   - Websites

b) **Collection of primary data**
   - Primary data collection process will involve observing and in-depth interaction with categorised sample:
   - **Adolescent (13 -19 years)**

Tools and Technique of data collection:

- **Schedule (**Likert scale 5 point)
- **General information –** Name, age, sex, educational status, type of family, income of family, religion.
- **Observation**
- **Anthropometric measurement-** Which can assess size, weight, height, body mass index (BMI) wt. in Kg /ht. in m^2 will be used.
- **Dietary Assessment –** Food Frequency Questionnaire (FFQ), 24-hours dietary recall.

Variables for Data Collection

- **Independent Variables: -** Age, sex, educational status, type of family size, income of the family, living standards, earning members, number of siblings, dietary pattern.
- **Dependent Variable: -** BMI, life style, health.

- **Sample size-** A total 300 number of adolescents purposively selected, from 4 private schools of Ranchi. 75 students from each school. (Table 1).

Table shows sample selection from 4 private schools:

	SCHOOL A		SCHOOL B		SCHOOL C		SCHOOL D	
CLASS	No. of Boys	No. of Girls	No. of of Boys	No. Girls	No. of Boys	No. of Girls	No. of Boys	No. of Girls
8th	8	7	7	8	8	7	7	8
9th	7	8	8	7	7	8	8	7
10th	8	7	7	8	8	7	7	8
11th	7	8	8	7	7	8	8	7
12th	8	7	7	8	8	7	7	8
Total	38	37	37	38	38	37	37	38
Sub Total	75		75		75		75	

Table 1

- **Selection of area** –adolescents selected from 4 private schools of Ranchi.
- **Method of Sampling-** Sampling will be based on non- probability Purposive Sampling.
- **Sample selection** – Adolescent of age group 13-19 years are selected.

Data Analysis

The study aims to present relevant information through tabulation and employ descriptive statistical analysis, including percentage, mean, range, and standard deviation. Additionally other statistical approaches will be used, while graphs and diagrams will be used for classification and analysis where applicable.

Limitations:

- The sample is restricted to only 4 schools of Ranchi.
- Only few impacts of junk food consumption are considered such as: - obesity, skin health (acne), constipation, addiction, whereas there are many harmful effects of consumption of junk food.

Significance of study

1. **Health Consequences:** Investigating the impact of junk food on adolescents provides insights into potential health issues, such as obesity, nutritional deficiencies, and related complications.
2. **Behavioural Patterns:** Understanding the consumption patterns and preferences of adolescents towards junk food helps identify behavioural trends, aiding in the development of targeted interventions
3. **Long-Term Health Risks:** Studying the long-term effects of junk food on adolescents helps assess the risk of developing chronic conditions and diseases later in life
4. **Public Health Interventions:** The research contributes to the development of effective public health strategies and policies to address and mitigate the negative effects of excessive junk food consumption among adolescents.
5. **Educational Programs:** Findings from the study can inform educational programs aimed at raising awareness and promoting healthier dietary choices among adolescents.
6. **Vulnerable Demographic:** Adolescents are a particularly vulnerable demographic, it means those type of population that affects and influence easily, understanding the impact of junk food on their health is crucial for fostering a healthier future generation.

Relevance

The study on the impact of junk food among adolescents holds significant relevance in the context of public health. With the escalating concerns surrounding health issues linked to dietary choices, particularly in younger age groups, this research aims to shed light on the consequences of consuming junk food. Adolescents represent a crucial demographic, as habits formed during this period can have enduring effects on their health. Moreover, the findings have direct implications for policy development, guiding evidence-based measures to promote healthier

eating habits.. Ultimately, the study's relevance lies in its potential to contribute to improved public health outcomes and the overall quality of life for adolescents and society as a whole.

Contribution to existing knowledge

This study significantly contributes to the existing body of knowledge on the impact of junk food, particularly focusing on adolescents. While prior research has explored the broader consequences of unhealthy dietary habits, this investigation provides a nuanced understanding by dissecting the age-specific effects on adolescents. By emphasizing the significance of the study, it contributes directly to the formulation of evidence-based policies, offering practical applications for mitigating the negative impact of junk food. The adolescent-specific focus brings forth age-specific considerations, enriching our understanding of how dietary choices during this critical phase influence long-term health outcomes. In essence, this research significantly enriches and advances our comprehension of the intricate relationship between junk food consumption, health implications, and policy interventions.

Future works:

- Longitudinal study can help to better understanding of consumption of junk food.
- Investigation of connection between academic performance and junk food consumption in adolescents.
- In depth analysis of impact of consumption of junk food, like ethnographic study, clinical study etc.

Chapterisation –

The work plan is as follows:

Chapter 1	Introduction
Chapter 2	Review of Literature
Chapter 3	Research Methodology
Chapter 4	Result& Discussion
Chapter 5	Conclusion & Suggestion

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